

REMARKS

I. Amendments

Claim 8 is amended to include a temperature range beginning at 294°F. Support for this amendment can be found in Example 1 at line 38.

II. Rejection under 35 U.S.C. §102/§103

Claims 5-6, 8-9, and 13-16 were rejected under 35 U.S.C. §102 as being anticipated by Chakravarti et al. (US 6,497,852B2) (“Chakravarti”). Applicant traverses this rejection.

The invention relates to a regeneration process for an aqueous acid gas-absorption fluid. The fluid includes at least one nitrogen-based chemical absorbing agent for an acid gas. The process includes stripping acid gas from the aqueous acid gas-absorption fluid in a pressure vessel, at a pressure in excess of about 50 psia and below about 300 psia, and at a temperature from 294°F and below 400°F.

Chakravarti discloses a process in which carbon dioxide is recovered from a feed stream whose pressure is up to 30 psia by preferentially absorbing carbon dioxide from said feed stream into a liquid absorbent fluid, pressurizing, and heating the resulting stream to a pressure sufficient to enable the stream to reach the top of the stripper at a pressure of 35 psia or greater followed by stripping and recovery steps (see, e.g., Abstract). Chakravarti further discloses that, in the stripping process, higher pressures in the reboiler would increase the reboiler temperature and that the temperature should not exceed 140°C (284°F) (see col. 3, line 66 – col. 4, line 5). In contrast, the process of the invention includes stripping acid gas at a temperature from 294°F and below 400°F. Thus, the claimed invention is novel over Chakravarti.

Claims 7 and 11 are rejected under 35 U.S.C. §103(a) as being unpatentable over Chakravarti et al. (US 6,497,852B2) in view of Iijima et al. (JP 10-067994) (“Iijima”). Applicant traverses this rejection.

Chakravarti does not disclose or suggest the claimed invention, either alone or in combination with Iijima. In particular, Chakravarti does not disclose or suggest, alone or in combination with Iijima,

stripping acid gas from the acid-gas absorption Fluid in a pressure Vessel operated at essentially a single pressure in excess of about 50 psia and below about 300 psia, wherein heat is supplied to the Fluid in the Vessel by a reboiler in a sufficient quantity that the Fluid is at a temperature in excess of 294°F and below 400°F.

Moreover, there is no apparent reason, and the Action provides none, to modify Chakravarti (alone or in combination with Iijima) to achieve the claimed invention. Thus, Chakravarti does not render the claimed invention obvious.

Reconsideration and withdrawal of the rejections are respectfully requested. Applicant respectfully requests allowance of all claims.

Dated: November 19, 2010

Respectfully submitted,

Electronic Signature: /Shelley D. Storer/
Shelley D. Storer
Registration No.: 45,135
THE DOW CHEMICAL COMPANY
2040 Dow Center
Midland, Michigan 48674
989-636-7393